Department of Energy
Idaho Operations Office
850 Energy Drive
Idaho Falls, Idaho 83401-1563

July 16, 2002

Dr. Kenneth C. Reid, State Archaeologist and Idaho SHPO
Idaho State Historical Society
State Historic Preservation Office
210 Main St.
Boise, ID 83702

SUBJECT: Glovebox Excavator Project at the Radioactive Waste Management Complex (TS-ETSD-02-109)

Dear Dr. Reid:

The Department of Energy, Idaho Operations Office (DOE-ID) plans to utilize the Glovebox Excavator Method project for the retrieval, characterization, repackaging, and interim storage of transuranic (TRU) waste at the Idaho National Engineering and Environmental Laboratory (INEEL). The area chosen to demonstrate this retrieval method is within a specific area of Pit 9 in the Subsurface Disposal Area (SDA) at the Radioactive Waste Management Complex (RWMC). The Glovebox Excavator Method project is part of the Operable Unit 7-10 work scope that is being conducted at Pit 9 as designated by the Federal Facilities Agreement and Consent Order. DOE-ID is confident that the project will ensure worker and environmental safety while providing characterization data for safe interim storage and thus achieving the objectives of the dispute settlement agreement signed by the EPA, State, and DOE, which became effective on April 18, 2002.

The waste within Pit 9 was created as a result of Cold War era nuclear weapons production at DOE's Rocky Flats Plant in Colorado and includes such items as containerized sludge (e.g., salt precipitates and organics), personal protective equipment, paper, rags, wood, filters, plastics, angle iron, electronic instrumentation, pumps motors, power and hand tools, drums containing graphite wastes from plutonium production, and empty 55-gal drums. The waste material was placed in Pit 9 between 1967 and 1969 on top of a layer of clean under burden soil. A significant quantity of soils, referred to as interstitial soils, are located among the buried waste materials and approximately 3 ½ to 5 ft of clean overburden soil also overlays the waste zone material.

The Glovebox Excavator Method project will involve construction of an outer weather enclosure structure and an inner confinement structure over the preselected area of Pit 9. Only the excavator arm of a commercial excavator will extend into the confinement structure for bulk removal and temporary stockpiling of overburden soils, retrieval of waste materials, and core sampling of under burden soils. As the waste zone materials (e.g., waste and interstitial soils) are excavated, they will be placed in a transfer cart, which will carry the materials to one of three gloveboxes for inspection, categorization, sampling, and repackaging.

After waste excavation is complete, the stockpiled overburden soil will be placed back into the excavation or disposed of at a separate disposal facility such as the INEEL Comprehensive Environmental Response Compensation Liability Act (CERCLA) Disposal Facility. A mixture of low strength grout will be used to backfill the resulting hole to within approximately 3 ft from grade. A clean soil layer will then be used to fill the remaining void and bring the excavation to grade. Project planning also provides for the deactivation, decontamination, and decommissioning of the structures used during the Glovebox Excavator Method project.

All activities associated with the Glovebox Excavator Method project will occur within the fenced perimeter of the RWMC in areas that are highly disturbed by modern activities. Radioactive contamination is also present in the SDA where Pit 9 is located. The Department and its Contractor (BBWI) believe that no archaeological or Native American Grave Protection and Repatriation Act-related materials are located in the soils that were placed underneath, around, and over the top of the waste materials when they were brought to Pit 9 in the late 1960s. In the unlikely event that such materials are contained within the overburden soils, they will be removed in bulk along with their associated soils and placed in temporary storage (i.e., in soil sacks) as the nearby waste materials are retrieved. If such materials are contained in the interstitial soils, they will be retrieved by the excavator along with the associated highly contaminated waste materials and repackaged for transfer to the Advanced Mixed Waste Treatment Facility. Because of design constraints and contamination control issues, no attempt will be made to identify cultural materials in these soils and any cultural materials contained within them will be disposed of along with the associated soil and/or waste. This approach will help to prevent any spread of contamination, protect workers, and the environment, alike.

Pursuant to Section 106 of the National Historic Preservation Act, the Department invites your review of the enclosed description of the Glovebox Excavator Method project and the plans for unanticipated discoveries as outlined above. I thank you for your time and consideration of this federal undertaking and enclose a Conceptual Design Report, "OU 7-10 Glovebox Excavator Method Project," INEEL/EXT-01-01512, to facilitate your review. Please provide any comments to me by August 19, 2002, or as soon as practicable. If you have any questions or if you are in need of any additional information please feel free to contact me at (208) 526-1122.

Sincerely,

Robert A. Starck

Robert A. Starck
Cultural Resources Coordinator

Enclosure